CLAIMS

We claim:

1.   A method for identifying duplicate records among multiple systems, comprising the steps of:

       loading first records having an index number into a database during a first predetermined time period;

       for each record having said index number, searching said database for another record, loaded during a second earlier time period, having the same index number and replacing said another record, if found, with said first record;

       comparing each first record for which no matching index number record was found with all other first records for which no matching index number record was found;

       comparing each of said first records for which no matching index number record was found with all the other records including the replaced records in said database;

17   generating reports of the comparing steps, the reports

18   listing records which compared; and

19   eliminating from said database said first records

20   deemed to have compared.

1   2.   The method of claim 1, said records being invoice

2   records.

1   3.   A method for providing a report that can be used to

2   evaluate two or more invoiced documents for further

3   investigation of possible duplicate invoicing, comprising

4   the steps of:

5   maintaining a compact database by removing canceled

6   invoice documents and invoice documents older than a

7   predetermined period;

8   extracting data from said compact database by matching

9   on suppliers invoice indicia, name, date and amount;

10   and

11   producing said report from said data.

1   4.   The method of claim 3, further comprising the step of:

2   entering invoice data to said compact database from a

3   plurality of accounts payable systems.

1   5.   The method of claim 3, further comprising the steps of:

2   first entering said invoices into said compact database

3   for payment at a later date; and

4   checking said compact database for duplicate invoices

5   before said later date.

1   6.   The method of claim 3, further comprising the step

2   responsive to submission of an invoice with a null invoice

3   indicia field of entering date indicia in said null invoice

4   indicia field.

1   7.   Method for capturing packets of possible duplicate

2   invoices for duplicate invoice analysis, comprising the

3   steps of:

4   maintaining a collection of current invoices that have

5   not yet been paid;

6   maintaining a collection of history invoices that have

7   been paid; and

8   generating from said current invoices and said history

9   invoices a packet of invoices exhibiting a same

10   behavior, said packet including at least one invoice

11   from said collection of current invoices.

1   8.   The method of claim 7, each invoice comprising a record

2   including vendor identifier indicia, vendor record indicia,

3   date indicia, and amount indicia.

1   9.   The method of claim 8, each said record including a

2   vendor record indicia field, a data indicia field, and an

3   amount indicia field.

1   10.   The method of claim 9, further comprising the steps of:

2   flagging said invoices in said packet against each

3   other with respect to expert criteria;

4   dropping from said packet unflagged invoices; and

5   discarding remaining packets having no current

6   invoices.

1   11.   The method of claim 10, further comprising the step of

2   flagging record pairs having transposed digits in said

3   vendor record indicia fields.

1   12.   The method of claim 10, further comprising the step

2   responsive to receiving an invoice with null vendor record

3   indicia field of entering date indicia as date-like indicia

4   to said vendor record indicia field.

1   13.   The method of claim 12, further comprising the step of

2   flagging invoice pairs having a same vendor identifier

3   indicia and date-like indicia in said vendor indicia field.

1   14.   The method of claim 10, further comprising the step of

2   flagging invoice pairs having matching vendor record

3   indicia.

1   15.   The method of claim 10, further comprising the step of

2   flagging invoice pairs having, for matching vendor

3   identification indicia, matching vendor record indicia

4   except for a prefix or suffix character.

1   16.   The method of claim 10, further comprising the step of

2   flagging invoice pairs, for matching vendor identification

3   indicia, having vendor record indicia of different lengths.

1   17.   The method of claim 10, further comprising the step of

2   flagging invoice pairs matching on said vendor record

3   indicia while ignoring embedded blanks.

1   18.   The method of claim 12, further comprising the steps

2   of:

3   flagging invoice pairs having transposed digits in said

END9 2000 0156 US1   41

4   vendor record indicia fields;

5   flagging invoice pairs having a same vendor identifier

6   indicia and date-like indicia in said vendor indicia

7   field;

8   flagging invoice pairs having matching vendor record

9   indicia;

10   flagging invoice pairs having, for matching vendor

11   identification indicia, matching vendor record indicia

12   except for a prefix or suffix character;

13   flagging invoice pairs, for matching vendor

14   identification indicia, having vendor record indicia of

15   different lengths; and

16   flagging invoice pairs matching on said vendor record

17   indicia while ignoring embedded blanks.

1   19. The method of claim 7, further comprising the step of

2   forcing all said invoices to be current.

1   20. The method of claim 7, further comprising the step of
2   capturing packets having same vendor and invoice numbers.

1   21. The method of claim 7, further comprising the step of
2   capturing packets having similar vendor names and same
3   invoice amount.

1   22. The method of claim 7, further comprising the step of
2   capturing packets having similar invoice dates and amounts,
3   differing only on flagged conditions.

1   23. The method of claim 7, further comprising the step of
2   capturing packets having same invoice amount and numbers but
3   not same date and vendor name.

1   24. The method of claim 7, further comprising the step of
2   capturing packets having same invoice number and vendor name
3   but not same vendor number and invoice amount.

1   25. The method of claim 7, further comprising the step of

2   capturing packets having the same vendor number and same

3   invoice number and amount, irrespective of invoice date.

1   26.   A program storage device readable by a machine,

2   tangibly embodying a program of instructions executable by a

3   machine to perform method steps for identifying duplicate

4   records among multiple systems, said method steps

5   comprising:

6   loading first records having an index number into a

7   database during a first predetermined time period;

8   for each record having said index number, searching

9   said database for another record, loaded during a

10   second earlier time period, having the same index

11   number and replacing said another record, if found,

12   with said first record;

13   comparing each first record for which no matching index

14   number record was found with all other first records

15   for which no matching index number invoice was found;

16   comparing each of said first invoices for which no

17   matching index number record was found with all the

18   other records including the replaced records in said

19   database;

20   generating reports of the comparing steps, the reports

21   listing records which compared; and

22   eliminating from said database said first records

23   deemed to have compared.

1   27. A program storage device readable by a machine,

2 tangibly embodying a program of instructions executable by a

3 machine to perform method steps for providing a report that

4 can be used to evaluate two or more invoiced documents for

5 further investigation of possible duplicate invoicing, said

6 method steps comprising:

7   maintaining a compact database by removing canceled

8   invoice documents and invoice documents older than a

9   predetermined period;

10   extracting data from said compact database by matching

11   on suppliers invoice indicia, name, date and amount;

12   and

13   producing said report from said data.

1   28.   A program storage device readable by a machine,

2   tangibly embodying a program of instructions executable by a

3   machine to perform method steps for capturing packets of

4   possible duplicate invoices for duplicate invoice analysis,

5   said method steps comprising:

6   maintaining a collection of current invoices that have

7   not yet been paid;

8   maintaining a collection of history invoices that have

9   been paid; and

10   generating from said current invoices and said history

11   invoices a packet of invoices exhibiting a same

12   behavior, said packet including at least one invoice

13   from said collection of current invoices.

1   29. A system for capturing packets of possible duplicate

2   invoices for duplicate invoice analysis, comprising:

3   a current file of invoices that have not yet been paid;

4   a history file of invoices that have been paid; and

5   a packet of invoices generated from said current file

6   and said history files for storing invoices exhibiting

7   a same behavior, said packet including at least one

8   invoice from said of current file.

1   30. The system of claim 29, said packet containing invoices

2   having same vendor and invoice numbers.

1   31. The system of claim 29, said packet containing invoices

2   having similar vendor names and same invoice amount.

1   32. The system of claim 29, said packet containing invoices

2   having similar invoice dates and amounts, differing only on

3   flagged conditions.

1 33. The system of claim 29, said packet containing invoices

2 having same invoice amount and numbers but not same date and

3 vendor name.

1 34. The system of claim 29, said packet containing invoices

2 having same invoice number and vendor name but not same

3 vendor number and invoice amount.

1 35. The system of claim 29, said packet containing invoices

2 having the same vendor number and same invoice number and

3 amount, irrespective of invoice date.

1 36. A computer program product or computer program element

2 for identifying duplicate records among multiple systems

3 according to method steps comprising:

4   loading first records having an index number into a

5   database during a first predetermined time period;

6   for each record having said index number, searching

7   said database for another record, loaded during a

8   second earlier time period, having the same index

END9 2000 0156 US1   48

9   number and replacing said another record, if found,

10   with said first record;

11   comparing each first record for which no matching index

12   number record was found with all other first records

13   for which no matching index number invoice was found;

14   comparing each of said first invoices for which no

15   matching index number record was found with all the

16   other records including the replaced records in said

17   database;

18   generating reports of the comparing steps, the reports

19   listing records which compared; and

20   eliminating from said database said first records

21   deemed to have compared.

1   37. A computer program product or computer program element

2   for capturing packets of possible duplicate invoices for

3   duplicate invoice analysis according to method steps

4   comprising:

5   maintaining a collection of current invoices that have

6   not yet been paid;

7   maintaining a collection of history invoices that have

8   been paid; and

9   generating from said current invoices and said history

10   invoices a packet of invoices exhibiting a same

11   behavior, said packet including at least one invoice

12   from said collection of current invoices.